KCRC
KNOX COUNTY RADIO CONTROL

Newsletter

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THIS'N THAT

► I hope you're not tired of hearing about old timer models and building cause I have some more, and as I build on my Benny Boxcar I plan to talk about that a but.

George Shacklett, our resident SAM member, sent me this note on what SAM is all about;

WHAT IS SOCIETY OF ANTIQUE MODELERS

Some of us old time modelers, often referred to as "has beens " or some unprintable names began modeling in the 1930's. I actually started in 1936 with a 50 cent Comet kit of the Curtis Robin. Everything was free flight and it didn't take long for good modelers to figure out that inherent stability was necessary to get models to fly. This meant designing models which would right themselves from an unfavorable attitude given enough altitude. Many free flight designs deviate quite a bit from full scale aircraft--- but they flew well Most of the early designs were rubber powered. In the early thirties, Bill Brown developed the first practical model engine—the Brown Jr. This caught on pretty quickly and there was a mix of rubber an gas power, which necessitated having separate rules for each. The Comet Model Airplane Company hired Carl Goldberg as a designer and he created many of the designs which are common in SAM approved models list. In later years, Carl & I became friends and I had a small part in the design of the Gentle Lady (a 2 meter glider).

The Society of Antique Modelers was formed in the early 1960's by people who flew, built and enjoyed the early designs. By this time radios had evolved from crude set ups to proportional control. Pattern flying was the big thing as well as control line. The early modelers saw the opportunity to use proportional RC in the beautiful models. The stability of the models makes them somewhat easy to fly and their beauty in the air is unsurpassed. SAM events are climb and glide events which makes landings dead stick. Old time flyers are adept at searching out thermals, making for long flights. In the past few years, electric power has become very usable and SAM has adapted some of the events for electric as well as gas power

Many old timer plans are available from which one can "scratch build". Kits are also available for a lot of SAM models. Kits are mostly short kits which provide curved parts (usually laser cut) and you furnish strip-wood and covering material. Two popular sources of SAM kits are Bob Holman (bhplans@aol.com) and Klarich Custom kits at klarichkits@gmail.com. Harry Klarich is not in good health, so I don't know his status at the moment. (he is 85 or more)

SAM Chapter 43 has about 18 or 20 members. We are scattered all over middle and Eat TN. One member s from Evansville IN. Recent SAM in TN contest was the 19th consecutive contest in TN. I did the first 15 of them at Rockwood Airport and some at TN Eagles field at Harriman. . If there is interest developed in KCRC for SAM, we welcome new members. The fee is hard to beat. There is no charge to join or maintain membership.We have had contestants from all over at the TN contests. One friend came as long as he was able from Boston.. Many from Illinois, Michigan, Florida, Georgia Kentucky and other places.

If you are interested in SAM, or just want to begin building models, I can organize some demonstrations both flying and seminar type sessions. Some friends from Nashville have offered to come help if there is interest. Fee free to contact me at any time—George Shacklett ■

► Michael Catlin is also helping out by some very good "how to" articles. Here is one on fabricating parts.

IN MEMORIUM

It is with sadness I report that KCRC Emeritus member John T. Heard passed away on October 16th, 2015 at the grand old age of 93. John was one of the group of members who made KCRC such a fun place to be on a pleasant summer day. Always smiling and enjoying himself, John could be counted on for helping solve a problem or finding a lost model. He will be missed by his many friends..

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A little information on making composite parts.

By Michael Catlin

First is the resin system used. High strength composite parts need a high strength resin system and a high fiber to resin ratio (more glass, less glue). The most common being epoxy resin. Epoxy resins come in many “flavors”, laminating, surfacing, gel-coats and adhesives.

Epoxies are delivered in 2 parts, Part A and Part B and even though most people call one “resin” and the other a “hardener” mixing more “hardener” in does not make the reaction go faster and can in fact make the cured epoxy weaker. Much weaker. The proper A & B ratios must be used to achieve full strength and NEVER use one manufacturer's Part A with another's Part B.

Whether mixing by weight or by volume follow the suppliers instructions. Mix in a non-waxed cup as the wax will dissolve into the epoxy and use the double-bucket approach. Pour part B into part A's bucket and mix with a square edged mixing tool. The square edge can get into the bucket's corners and be sure to scrape the sides of the bucket. Use even strokes and do not beat air into the resin, you're not making a souffle. Then pour the contents back into the part B bucket and mix again being sure to scrape the hardener out of the corner and off the walls into the mix.

Now pour the mixed resin into a shallow pan. The curing process is exothermic (releases heat) and leaving the resin in a large container as a bulky mass will result in a rapid increase in temperature and curing rate. If one is needing a large amount of resin for the job, subdivide the resin needed and measure out multiple batches of resin and have the Parts A & B ready to mix as needed. Be sure to label the containers! Mixing 2 part A's will ruin the part and your day.

Fillers are another tool in using epoxy resins. Always mix the Parts A & B before mixing in the fillers. Epoxy is by nature “runny” and will flow off vertical surfaces even by flowing through wetted out fabric. So, if the mold is deep sweeping up the sides will move resin from the bottom of the mold to the top. One trick to using such “runny” material is to add a small amount of Colloidal Silica. This material will make the resin more thixotropic or resistant to flowing. Adding large amount of Colloidal Silica will lower the strength of the resin. If you need a thicker mix there are other fillers.

Other fillers can include Micro-balloons, Microfibers and even Micro glass spheres. Of these, only the Microfibers and the Micro glass spheres can be considered structural. Micro-balloons can be used to form syntactic foam and can be light weight and easily sanded but is not considered structural. When mixing in fillers consistency is described with these 4 terms: Syrup, Catsup, Mayonnaise and Peanut Butter. A consistency of syrup will drip off vertical surfaces and is used to wet out fabrics. Catsup is used when laminating flat panels with large surface areas. Mayonnaise is used for general bonding and filleting. Peanut Butter is used for gap filling and bonding uneven surfaces.

Another common resin system is Polyester resin. Polyester resin is commonly found in the big box home centers and in auto part stores. Polyester should only be use for fiberglass applications as it has difficulty wetting graphite and Kevlar. Polyester is a catalyzed resin system and in this instance adding more catalyst will cause the reaction to go faster. Since adding catalyst will speed up the reaction, un-catalyzed resin will harden in the can giving it a shorter shelf life than epoxies. Polyester resin shelf life can be extended by keeping it in a refrigerator but remember to bring it to room temperature before opening the container to avoid condensing moisture from the surrounding air. If mixed per directions polyester resin will have a 20 minute working life at 70 degrees Fahrenheit. Shops that use polyester resin usually have large clocks visible to the workers to keep them informed of the time remaining. Cooling polyester resins and reducing the amount of catalyst will slow the reaction but reducing the catalyst too much can result in a part that takes weeks to cure and may never reach full strength.

Although low cost, polyester resin has neither the strength nor the durability of epoxy resins. And, it smells! The human nose is particularly sensitive to the styrene monomers in polyester resin and having a pan of polyester resin open can be enough to clear a room.

For those of you who would like to layup fiberglass over foam and still use polyester resin the standard polystyrene foam just won't work as the styrene in the resin will attack the foam. Instead one can use PVC foam or polyicyanurate foam (Home Depot Super TUFF-R). Or one can protect the foam from the resin by applying several coats of gloss latex paint.

To be continued, more composite information to follow.....Michael “

► Michael Catl;in took some pictures at the Harriman event last month and I wanted to show you this one.

KCRC Secretary Phil Spelt taxiing his PT-19 out for a take-off. This model used to be mine. It was one of Horizon's first ARF models and a very good one, although it was pretty heavy. I flew it for a while and sold it to another KCRCer who eventually sold it to Phil. Phil

has reworked it and covered it in a fabric. It looks beautiful!

Michael posted a bunch of pictures taken at the event on the KCRC Facebook site. Check them out.

► I went to the Executive Council meeting on Wednesday last and enjoyed seeing a bunch of guys I haven't seen in a while. I'd also like to say that this is a group of officers who are very involved in the betterment of the club.

I must say that I don't recall that the executive council ever held monthly meetings before the last couple years. I think it's a great idea.

► Randy Philipps sent me a couple pictures of the fence work going on this past few days.. Ralph Holder and John Basalone did a lot of work pulling up the old fence stakes and installing new ones and replacing the old fabric fencing...Jim ■

Illustration 1: John and Ralph after a hard days work..

KCRC Executive Committee Meeting

October 7, 2015

President Holder called the meeting of the KCRC Executive Committee (EC) to order at 6:55 pm.

Ralph Holder announced that the safety fence is completed, as of the past weekend. He added that Eddy Smith had paid for all the materials, since he feels he is unable to contribute to the Club in any other way.

The next order of business was the appointing of a Nominating Committee. We thought that Rick Thompson and Michael Catlin would be willing and make good members. Jeff Prosise stepped up and volunteered to be the third member. They are to have a slate of officers ready for the November Newsletter and meeting. Ralph Holder announced he was willing to run for President again; Ralph Colon wants to hold off deciding whether he would run for anything; Phil Spelt indicated he would not run for office again next year, but would be willing to run for the Board, as did Jeff Prosise. There was some additional discussion of who else might be good officer candidates.

We discussed how to conduct the voting process this year. After considering several ways, including an on-line voting form, we decided to use email and personal voting at the December meeting.

Ralph H. said we need a Painting Crew for the pit shelter and to work on the pavilion (paint/stain the floor). He asked Randy Phillips and Ralph Colon to organize that crew.

Respectfully submitted, Philip F. Spelt, Secretary..■

NEW SAFETY FENCE

by Ralph Holder, KCRC President

At the last meeting, I asked members to re-allocate funds from the Field mowing to several other budget line items. Mowing has been provided mainly by John Basalone and occasionally myself. So part of the $3000; $1700 was re-allocated to field maintenance to install a new and needed safety fence in which the club overwhelmingly approved. Since the last meeting, John Basalone and I ordered and installed the new netting and poles. About a week into the project, I was approached by Eddy Smith and he asked how much the material is going to cost. At that time I informed Eddy that it would be somewhere around $1300 to $1500. Eddy said he would like to pay for the materials since he could not help in the club or field work due to his medical issues. If you see Eddy, please stop and thank him for his wonderful contribution.

Illustration 2: Eddie Smith, ready to fly. Notice the new fence. Picture sent by Ralph Holder

I can't conclude this article without the many thanks to John Basalone for his help in driving this project. Please take a moment and say thanks to John for all the hard work....Ralph Holder,President ■

► Take a good look at the picture above of Eddie Smith. Check out the background; the fence, the grass, and the runway. Looks pretty good, doesn't it? How much effort did YOU contribute to get it looking this good? I'll hazard a guess and say that most of you did nothing. I can't fuss too much because I'm not doing

any work now, but I tried to do my share when I was younger. On work days there would usually be ten to fifteen guys show up and it usually was always the same guys. There's always a group who won't and a group who can't but the work somehow has to get done. If you're in the group who can't, then give your ATTABOYS to those who do, and if you're in the group who won't, then give it a try and pitch in. The more guys, the less work, and its kinda fun when you get right down to it....Jim ▉

The NOAA S-1000 Flies at KCRC!

By Ed Dumas

NOAA's DJI S-1000 has finally received FAA approval to fly and it has now flown at KCRC twice! The first flight was on Tuesday, October 13, followed by another flight on Wednesday, October 14. Both flights were a success and the instruments worked as planned, for the most part. The test flights at KCRC are primarily designed to test various instruments on the octocopter and compare them with similar data collected from the tower that was installed a few months ago. A collection of data and videos from the first two flights can be found at:

Illustration 3: Ed and his very impressive drone. Picture by Randy Philipps.

ftp://ftp.atdd.noaa.gov/pub/dumas/data/S-1000/

These data files show images from the FLIR camera (FLIR_Frame1.jpg) that was made from about 700 feet. You can see the runway at the top, the grassland to the bottom, and the forested area to the left in the image. The temperature scale is located on the right side of the image. The next file (FLIR_Video1.avi) is a video showing the liftoff from the thermal imaging camera. Note the copter's shadow... Since the copter sat on the runway for about 10 minutes prior to liftoff, the temperature of the runway underneath the shadow was noticeably cooler (around 10 degrees C) and its "imprint" is visible long after the copter lifts off. Just another one of the cool things about infrared photography! The next file (Flight_Movie1.mp4) shows a GoPro video made by Charlie Brown, the official observer for the flight, of the takeoff on Tuesday. Finally, there are a couple of plots of temperature and relative humidity as a function of altitude from the flight on Wednesday. These show a good deal of structure in both the temperature and RH signals.

Our next set of flights will be made near Huntsville, AL on Oct 20 & 21 to make more comparisons with additional instruments located there in preparation for a field experiment in the spring of 2016 to study the development of thunderstorms.--Ed ▉

KCRC Club Meeting Minutes, October 13, 2015

President Ralph Holder called the meeting to order at 7:00pm, as the shadows lengthened across the fields. President Holder reminded us that the November meeting will be at the Fellowship Church on Middlebrook Pike.

Minutes of the September meeting were approved as presented in the October News Letter.

Joel Hebert gave the Treasurer's Report, which was approved by voice vote. He also announced that we have 78 members, of whome12 are emeritus.

Thanks and recognition were given to Michael Catlin for doing the Facebook page, and John Basilone and John Partridge for recent mowing. Ralph Holder and John Basilone finished the new safety fence. The installation looks very professional. While the money to pay for the materials had been transferred into the field repair fund, Eddie Smith donated the money for the fence as his gift/contribution to KCRC. Much appreciation was shown to Eddie by the members in attendance.

A committee to paint and fix up the facilities at the field was created, with Randy Philipps, Ed Dumas, and Ralph Colon to head up that operation. Among other things, the floor of the pavilion is to be repaired and painted/stained.

Ralph H. brought up the plans under way to have an introduction to the Society of Antique Modelers (SAM), along with a Club build. Founding Emeritus member George "Doc" Shacklett will present a program at the November meeting about SAM. LA Johnston, from the Nashville area, is scheduled to fly a SAM demo at KCRC on Saturday, October 24th. There was some

discussion of having a cookout for the event, but nothing final was decided. The Club build would involve selecting a SAM-eligible model, and those interested in doing so would each build their own plane. Then, we would have an informal SAM contest next year.

The upcoming Float Fly was discussed, with the plans for it described. A show of hands indicated 5 or 6 members have float planes.

There was a brief discussion about electrical (battery) problems causing crashes. Among the topics discussed was cell leakage causing corrosion on the ground lead of battery packs and even servos. This is known in the hobby as “Black Wire Disease”, and it needs to be monitored, especially in planes with older NiCad battery packs.

Ed Dumas made a brief report on his initial octocopter flight for NOAA (National Oceanic and Atmospheric Administration). This flight was am instrumented one, with the goal of comparing flight data on atmospheric and weather conditions with data from the fixed NOAA station at the east end of the pit shelter. The flight went up to its nominal goal of 400 feet AGL, and landed safely back on the runway within about 10 feet of where it took off.

Crash of the Month: There were no formal crash reports this month.

Model of the Month: No candidates for MoM were presented.

Meeting adjourned at 7:35pm.

Respectfully submitted, Philip F. Spelt, Secretary

FLOAT FLY, Oct 17th

I snapped a few pics at the floatfly and thought I'd send them on to you. Maybe some of the other attendees can add pics and/or comments.

I arrived at the boat ramp around 8:45 and it was cold (43 degees) and FOGGY. Steve Jones showed up and we stood around looking at the fog. A little latter, John Walkling showed up with the retrieval boat. He had launched at Carbide Park across the lake and said he started motoring out directly across the lake in the fog. After he realized he had circled around in the fog and was back at his starting point, he got out his GPS and naviagated his way across the great expanse of Melton Hill and showed up at the east boat ramp. He did a great job as our much needed retrieval expert.

The sun finally came out and burned off the fog and it turned into a glorious East TN fall day. Here's a list of pilots and planes as I remember them. Maybe you guys can correct and add.

We had one pilot from Kingston/Harriman with a Flyzone Beaver on floats. Beautiful little electric that really jumps off the water.

We had three Parkzone Icons there with Phil Cope, Joel Hebert, and Dave Marsden. I think Dave was the first one in the club to get one of these now discontinued models. A pretty good little electric scale model of the real sport plane that is fun to land once you learn to let it slow down before you touch down on the back of the hull (or it skips like a flat rock.) Phil Cope also had his clasic Seamaster nitro plane. Joel had his old Balsa USA Laker nitro seaplane. Ralph Holder had his FlyZone Tidewater electric seaplane. Steve Jones had a Jack Taylor foamie on floats. Someone had a Hobbyzone Super Cub on floats. Phil Spelt had a Pilot pattern plane on floats and a Cessna on floats. Someone from KCRC (?) had a HobbyTown electric airboat with Ken and Barbie mounted on the seats. This thing would really scoot across the water.....Joel Hebert

Illustration 4: Joel sent these two pictures of several guys getting ready to play in the water..

Michael Catlin was at the Float Fly and took some videos and pictures. They are posted on the Facebook page and you might want to look them up. The videos are especially nice. He also sent me pictures of some of the models seen at the float fly.

We have a very good place to have the float flys and I think the activity is picking up.

Here are the pictures Michael sent.

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► I don't want to forget that we are in the middle of the holiday season. The one coming up is one of the biggies; Thanksgiving!!!

I look around and see all the things I'm thankful for, and I'll bet that you can do the same. It's great just to be able to look around, isn't it? My eyesight is not as good as it use to be, but I can still spend hours piddling around on a model, or have a ball just doing the newsletter. May not be able to fly much anymore but somehow there's always something else thats fun to do.

► Don't forget that next month (the December meeting) we vote for club officers. I don't have a list of candidates yet to post in the newsletter, but you will get a ballot and a list before the December meeting. Look it over and vote for the candidate you think will do the job. You will be able to vote by email, telephone or at the meeting.

► **Let me be the first to wish all of you a very Happy Thanksgiving.....Jim**